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VITAL STATISTICS

WEST VIRGINIA DEPARTMENT OF HEALTH

HEALTH STATISTICS CENTER

STATE OF WEST VIRGINIA

DEPARTMENT OF HEALTH

HEALTH STATISTICS CENTER

THIRTY-SEVENTH ANNUAL REPORT VITAL HEALTH STATISTICS OF WEST VIRGINIA 1983

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FOREWORD

Data used to prepare this report are taken from birth, death, fetal (stillborn), marriage, and divorce certificates of these events occurring in calendar year 1983 and filed in the Office of the West Virginia Registrar of Vital Statistics prior to June 1, 1984. Vital events occurring to West Virginia residents in other states and recorded in the office of the registrar by June 1 are also included in totals by residence.

All statistics contain variations that are the result of chance. This characteristic is of particular importance in classifications with small numbers of events, where small variations are proportionately large in relation to base figures. As an example, small changes in the number of deaths or births in small population areas or in the number of deaths from uncommon causes could result in large changes in the respective rates. For this reason, rates for counties with small populations or other small bases should be used cautiously.

Suggestions and comments on alternate methods of data presentation are welcome. Forward any suggestions to the address below:

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WEST VIRGINIA

VITAL STATISTICS SUMMARY

1983

Population

During 1983, 6,582 West Virginians were added to the population as a result of natural increase, the excess of births over deaths. The 1983 rate of natural increase was 3.4 persons per 1,000 population, 19% lower than the rate of 4.2 for 1982.

For the United States, the rate of natural increase was 6.9 persons per 1,000 population. This was 7% below the provisional rate of 7.4 for 1982, a decrease due to the decline in the birth rate.

Live Births

For the fourth year in a row, West Virginia births decreased, with a total of 25,875 resident live births and a rate of 13.5 per 1,000 population reported in 1983. During the decade 1974-83, the number of live births increased from 27,636 in 1974 to a high of 30,020 in 1977. It then leveled off through 1979 and decreased from 1980 through 1983.

From 1980 through 1982, West Virginia's birth rate countered the national trend of a rising birth rate. The nation's provisional birth rate of 15.5 in 1983 ended

the upward swing begun in 1977, as shown in the table below. West Virginia's birth rate fell below the national birth rate for the first time in 1980 and continued to drop even farther below the national rate through 1983.

BIRTH RATE	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983
WV	15.4	15.5	15.7	16.5	15.6	15.8	15.1	14.4	14.2	13.5
U.S.	14.8	14.6	14.6	15.1	15.0	15.6	15.9	1[illegible]	[illegible]	5
Diff.	+0.6	+0.9	+1.1	+1.4	+0.6	+0.2	-0.8	-		

The percentage of total births occurring in hospitals increased from 99.4% in 1982 to 99.5% in 1983. The percentage of all births attended by a physician also increased slightly, from 98.6% in 1982 to 98.7% in 1983. The number of home births by West Virginia resident mothers was 127 in 1982 and 119 in 1983. Of these, 24% were attended by a physician and 8% by a certified nurse midwife.

In both West Virginia and the United States, the number and percentage of live births occurring out of wedlock has risen steadily during the past decade. For West Virginia in 1983, the percentages of white and nonwhite births that occurred out of wedlock were 13.9% and 47.4%, respectively, compared with 12.6% and 45.5% in 1982. Corresponding national percentages were 12.1% and 56.7%, respectively, in 1982, according to the National Center for Health Statistics.

While the total number of births to teenage mothers (ages ten through nineteen) decreased from 5,019 in 1982 to 4,786 in 1983, the percentage of births to unmarried teenage mothers increased from 33.9% in 1982 to 36.4% in 1983.

The percentage of live births of low birth weight (less than 2,500 grams) remained steady in West Virginia at 6.7% for 1982 and 1983. Of the births with known birth weight, the percentage of nonwhite low-birth-weight babies was 10.8%, compared with 6.6% for white babies. Nine percent of the 4,786 births to teenage mothers were low-birth-weight babies, up from 7.8% in 1982. Nationally, the percentage of infants weighing less than 2500 grams at birth was 6.8 in both 1981 and 1982. In the United States in 1982, 5.6% of white infants and 12.4% of black infants were of low birth weight.

Seventy-one percent of mothers who received prenatal care began such care during the first trimester of pregnancy, up 1% from 1982. One percent of all mothers received no prenatal care for both 1982 and 1983. For those who did receive prenatal care, 73% of the mothers of white babies began care during the first trimester; 57% of the mothers of nonwhite babies did so. No prenatal care was received by 1% of the mothers of white babies and by 2% of the mothers of nonwhite babies. Eight percent of unmarried mothers had no prenatal care, with only 44% of these women beginning their care during the first trimester.

Deaths

West Virginia's 1983 crude death rate increased slightly from 9.7 deaths per 1,000 population in 1982 to 9.9 in 1983. The national 1983 provisional death rate was 8.6 deaths per 1,000 population, unchanged from 1982. The big three -- heart disease, cancer, and stroke -- accounted for 69% of West Virginia resident deaths and 68% of United States deaths in 1983.

The ten leading causes of death were the same for West Virginia and the United States in 1981 and 1982. In 1983, only the top eight causes of death had the same ranking, as shown below:

TEN LEADING CAUSES OF DEATH	PERCENT OF TOTAL DEATHS			
	1983		1982	
	WV	US	WV	US
1. Diseases of the heart	40.9	38.0	41.7	38.2
2. Malignant neoplasms	20.7	22.0	20.7	21.9
3. Cerebrovascular disease	7.6	7.8	7.5	8.0
4. Accidents, all forms	4.3	4.5	4.8	4.8
5. Chronic obstructive pulmonary disease and allied conditions	4.1	3.3	3.6	3.0
6. Pneumonia and influenza	2.3	2.7	2.1	2.5
7. Diabetes and mellitus	2.2	1.8	1.9	1.7
8. Suicide	1.3	1.4	1.2	1.4
9. Arteriosclerosis	1.2	1.3	1.3	1.3
10. Nephritis, nephrotic syndrome, and nephrosis	1.1	1.3	0.9	0.9
11. Chronic liver disease	1.0	1.4	1.0	1.4
Total for 10 leading causes	85.6	84.0	85.9	84.4
All other causes	14.0	16.0	14.1	15.6
TOTAL for all causes	100.0	100.0	100.0	100.0

Suicide moved from tenth place in 1981 and ninth in 1982 to eighth in 1983 as a result of the decreasing number of state deaths due to arteriosclerosis and chronic liver disease. Nephritis replaced chronic liver disease and cirrhosis as the tenth leading cause of death for West Virginia residents.

Accidents remained the leading cause of death among the young. Overall, accidental deaths decreased 7.8% from 909 in 1982 to 838 in 1983. The leading single cause of death for young adults aged 15 to 34 was motor vehicle accidents. In this age group, motor vehicle accidents accounted for 35% of all deaths in 1983, compared with 33% in 1982 and 1981. West Virginia's 1983 motor vehicle deaths included five children of between one and six years of age.

Fetal Deaths

The 264 resident fetal deaths reported in 1983 were the lowest number ever reported in the state. Fifty-seven percent of women whose pregnancy resulted in a fetal death in 1983 began prenatal care during the first trimester; 8% of those with known prenatal care either began care in the third trimester or had no care.

Neonatal Deaths

The number of neonatal deaths declined 8%, from 197 in

1982 to 181 in 1983. The neonatal death rate decreased from 7.2 per 1,000 live births in 1982 to 7.0 in 1983, slightly below the United States provisional 1983 rate of 7.2. Neonatal deaths comprised 64% of all West Virginia resident infant deaths in 1983.

Infant Deaths

Continuing a twenty-year trend, infant deaths fell to 281 for a rate of 10.9 per 1,000 live births, setting a new low for the state in both the number and rate of infant deaths. West Virginia's 1983 infant death rate of 10.9 was in line with the downward trend that was interrupted in 1981 by a statistically insignificant increase from 11.8 in 1980 to 13.1 in 1981.

West Virginia's infant death rate has been moving steadily toward the national rate. The state's rate of 10.9 equaled the national provisional 1983 rate, also the lowest rate ever recorded in the United States. During the decade of 1974-83, infant deaths decreased 45% in West Virginia.

Conditions originating in the perinatal period (such as respiratory distress syndrome, short gestation, and low birth weight) and maternal conditions were listed as the causes of 44% of infant deaths. Congenital anomalies comprised 25% and sudden infant death syndrome (SIDS) made up another 14%. As shown below, generally recognized risk factors were associated with a disproportionate percentage

of infant deaths in 1983:

	PERCENT TOTAL BIRTHS	PERCENT INFANT DEATHS
Unmarried mother	15.4%	20.3%
Teenage mother	18.5%	23.1%
Mother's education less than 12 years	28.4%	37.1%
Low birth weight	18.5%	55.1%
Mutiple births	1.6%	8.2%

Maternal Deaths

Two maternal deaths were reported in 1983 for a rate of 7.7 per 100,000 population, compared with the United States provisional 1983 rate of 8.1. Since 1972, the number of maternal deaths reported in the state has varied from one in 1976 to seven in both 1973 and 1979.

Summary

In 1983 West Virginians experienced a decrease in the numbers of births, deaths, fetal deaths, infant deaths, marriages, and divorces. The state's 1983 crude death rate showed a slight rise from 1982 as the result of an estimated increase in the population.

Place of Residence vs. Place of Occurrence

Data on vital events can be reported in two ways, by county of residence or by county of occurrence. For example, Lincoln County reported 71 deaths as occurring within the confines of the county. However, resident deaths for 1983 totaled 190. With the exception of Tables 16 and 27, the mortality data presented in this report are based on county of residence.

With the exception of Table 5, birth data are similarly reported by county of residence.

Geographic Classification

The county has been used as the basic unit of tabulation throughout this report. Data have also been supplied for health planning regions and, of course, for the total state. In some instances data have been supplied for individual cities.

Cause of Death Classification

The cause of death is coded from information contained in the medical certification section of the death certificate. This portion of the certificate is completed by the attending physician. In the case of an unattended death, the medical examiner is responsible for investigation and certification. As a general rule, data preceding 1949 cannot be accurately compared with that of later years due to the extensive revision of the coding rules made at that time. It was felt, however, that large causal categories could be compared. See Appendix B, "Grouping of ICDA Codes," for a listing of these selected causes.

International Classification of Diseases (ICDA)

The primary cause of death was coded in accordance with the Ninth Revision of the International Classification of Diseases Adapted for Use in the United States, 1975 (ICDA). The deaths with codes 000 through 799 were coded using the "nature of injury" causes, while those with codes 800 through 999 were coded using the E or "external cause" of death. The E codes are used to indicate a death due to an external rather than an internal cause. Thus a death from a gunshot wound would be coded using an E code; a death due to cancer would not.

In several tables individual causes of death have been grouped into important selected causes of death. The ICDA codes for the different groupings can be found in Appendix B.

Population

Population figures for 1970 and 1980 used throughout this report are taken from the U. S. Department of Commerce, Bureau of the Census publications "Current Population Reports," Series P-26, No. 77-48 and "West Virginia Final Population and Housing Unit Counts," PHC80-V-50, March 1981. The 1981 and 1982 provisional population estimates were provided by the Bureau of the Census publication "Estimates of the Population of West Virginia Counties and Metropolitan Areas: July 1, 1981, and 1982 (Provisional)."

Forms

The following is a list of the certificates and forms used in obtaining the data used in this publication. A sample copy of each can be found in Appendix A.

Certificate of Live Birth
Physician's Certificate of Death
Medical Examiner's Certificate of Death
Certificate of Fetal Death
Application for Marriage License
Monthly Report of Divorces and Annulments of Marriage Granted.

RATES AND RATIOS

The impact of chance variation must be considered in evaluating categories with small frequencies. For example, a small change in the number of infant deaths in a county can disproportionately affect the infant mortality rate for that county. Rates for cities and counties therefore require special consideration. Regional and state rates, with larger frequencies, provide more realistic data.

Rates used in this report are calculated with 1982 provisional population figures reported in "Estimates of the Population of West Virginia Counties and Metropolitan Areas: July 1, 1981, and 1982 (Provisional)," published by the Bureau of the Census.

Birth Rate (Crude)

$$= \frac{\text{Number of live births}}{\text{Population}} \times 1{,}000$$

Death Rate (Crude)

$$= \frac{\text{Number of deaths}}{\text{Population}} \times 1{,}000$$

Cause of Death Rate

$$= \frac{\text{Number of deaths from a stated cause}}{\text{Population}} \times 100{,}000$$

Infant Death Rate

$$= \frac{\text{Number of infant deaths}}{\text{Number of live births}} \times 1{,}000$$

Neonatal Death Rate

$$= \frac{\text{Number of neonatal deaths}}{\text{Number of live births}} \times 1{,}000$$

Fetal Death Ratio

$$= \frac{\text{Number of fetal deaths}}{\text{Number of live births}} \times 1{,}000$$

Maternal Death Rate

$$= \frac{\text{Number of maternal deaths}}{\text{Number of live births}} \times 100{,}000$$

DEFINITIONS

LIVE BIRTH - A live birth is the complete expulsion or extraction from its mother of a product of conception, irrespective of the duration of pregnancy, which, after such separation, breathes or shows any other evidence of life, such as beating of the heart, pulsation of the umbilical cord, or definite movement of voluntary muscles.

BIRTH WEIGHT - The weight of the fetus or infant at the time of delivery.

CAUSE OF DEATH - The underlying cause of death, or that condition giving rise to the chain of events leading to death.

FETAL DEATH (STILLBIRTH) - Death prior to the complete expulsion or extraction from its mother of a product of conception, having passed through at least the twentieth week of gestation; the fetus shows no signs of life such as beating of the heart, pulsation of the umbilical cord, or definite movement of voluntary muscles.

INFANT DEATH - Death occurring to an individual of less than one year of age.

NEONATAL DEATH - The death of a live-born infant that occurs within the first twenty-seven days of life.

MATERNAL DEATH - Death attributable to delivery or a complication of pregnancy, childbirth, or the puerperium as defined by the International Classification of Diseases.

OCCURRENCE DATA - Vital statistics compiled on the basis of where the vital event actually occurred.

RESIDENCE DATA - Vital statistics compiled on the basis of the usual place of residence of the person(s) to whom the vital event occurred. For births and fetal deaths, residence is defined as the mother's usual place of residence.

1983

VITAL STATISTICS REVIEW

WEST VIRGINIA STATE POPULATION* 1,957,000

	NUMBER	RATE	
		WV	U.S.**
LIVE BIRTHS	25,875	13.2	15.5
DEATHS	19,293	9.9	8.6
FETAL DEATHS	264	10.2	N/A
NEONATAL DEATHS	181	7.0	7.2
INFANT DEATHS	281	10.9	10.9
MATERNAL DEATHS	2	7.7	0.8
MARRIAGES	15,930	8.1	10.5
DIVORCES & ANNULMENTS	10,113	5.2	5.0

*1982 provisional population estimates. Source: "Estimates of the Population of West Virginia Counties and Metropolitan Areas: July 1, 1981, and 1982 (Provisional)," U.S. Department of Commerce, Bureau of the Census. Series P-26, No. 82-48-C, July 1984.

**Source: National Center for Health Statistics. Monthly Vital Statistics Report, Vol. 32, No. 12, DHHS Pub. No. (PHS) 84-1120. March 26, 1984.

AVERAGE DAY STATISTICS
WEST VIRGINIA, 1983

Live Births	70.9
Deaths	52.9
Fetal Deaths	0.7
Infant Deaths	0.8
Heart Disease Deaths	21.6
Cancer Deaths	11.0
Cerebrovascular Deaths	4.0
Pneumonia	1.2
Accidental Deaths	2.3
Motor Vehicle Deaths	1.2
Marriages	43.6
Divorces and Annulments	27.7